

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of processing a tube, said method comprising the steps of:

rotating a mandrel disposed at a work station,

moving a first portion of the tube into a the work station, said step of moving the first portion of the tube into the work station includes the steps of rotating the tube about its longitudinal central axis at the same speed as the mandrel while the tube is spaced apart from the mandrel and moving the mandrel and tube into a telescopic relationship while rotating the mandrel and tube at the same speed,

cutting the first portion of the tube into a first plurality of sections while rotating the tube and mandrel,

receiving a scrap section which is disposed on an end of the first portion of the tube at a scrap receiving location,

receiving sections of the first portion of the tube other than the scrap section at a second receiving location which is separate from the scrap receiving location,

moving a second portion of the tube into the work station while rotating the tube and mandrel at the same speed,

cutting the second portion of the tube into a second plurality of sections,
and

directing the second plurality of sections to the second receiving location which is separate from the scrap receiving location.

2. (Currently Amended) A method as set forth in claim 1 wherein said step of cutting the first portion of the tube into a first plurality of sections includes forming an end surface on the second portion of the tube, said step of moving the second portion of the tube into the work station while rotating the tube and mandrel at the same speed is performed with the end surface on the second portion of the tube leading.

3. (Original) A method as set forth in claim 1 further including the step of pressing an end of the first portion of the tube against a stop surface under the influence of force transmitted from the second portion of the tube to the first portion of the tube during cutting of the first portion of the tube.

4. (Currently Amended) A method as set forth in claim 1 further including the steps of pressing ~~the end of~~ an end surface on the first portion of the tube against a stop surface while rotating the tube and mandrel at the same speed with the stop surface in a first position during cutting of the first portion of the tube into a first plurality of sections, moving the stop surface to a position spaced from the first position, said step of cutting the second portion of the tube includes pressing an end surface on of the second portion of the tube against the stop surface with while rotating the tube and mandrel at the same speed the stop surface in a position spaced from the first position.

5. (Currently Amended) A method as set forth in claim 1 further including the step of rotating the tube and mandrel at the same speed about a longitudinal central axis of the tube during performance of said steps of ~~moving the first portion of the tube into the work station,~~ cutting the first portion of the tube, ~~moving the second portion of the tube into the work station,~~ and cutting the second portion of the tube.

6. (Currently Amended) A method as set forth in claim 1 wherein said step of moving the first portion of the tube into the work station includes moving the first portion of the tube along a longitudinal central axis of the tube while rotating the tube and mandrel at the same speed about the longitudinal central axis of the tube, said step of moving a second portion of the tube into the work station includes moving the second portion of the tube along the longitudinal central axis of the tube while rotating the tube and mandrel at the same speed about the longitudinal central axis of the tube.

7. (Currently Amended) A method as set forth in claim 1 further including the step of moving the second portion of the tube in a direction away from the work station after performing said step of cutting the first portion of the tube and prior to performance of said step of moving the second portion of the tube into the work station, said step of moving the second portion of the tube away from the work station being performed while rotating the mandrel and second portion of the tube.

8. (Currently Amended) A method as set forth in claim 1 further including the step of ~~moving the first end portion of the tube and a mandrel into a telescopic relationship in which the mandrel is disposed inside the first portion of the tube, rotating the mandrel while the tube and mandrel are in a telescopic relationship, and rotating the tube at the same speed as the mandrel while the tube and mandrel are in a telescopic relationship,~~ said step of rotating the tube at the same speed as the mandrel includes applying force to the tube at a location spaced from the mandrel.

9. (Original) A method as set forth in claim 1 wherein said step of moving a first portion of the tube into the work station includes moving the tube along a longitudinal central axis of the tube, reducing the speed of movement of the tube along its longitudinal central axis, and engaging a stop surface with a leading end of the tube after reducing the speed of movement of the tube.

10. (Original) A method as set forth in claim 9 further including the step of pressing the leading end of the tube against the stop surface during cutting of the first portion of the tube into a first plurality of sections.

11. (Original) A method as set forth in claim 1 wherein said step of moving the first portion of the tube into the work station includes simultaneously moving the tube along its central axis and rotating the tube about its central axis.

12. (Original) A method as set forth in claim 1 further including the step of rotating the first and a second portions of the tube about a longitudinal central axis of the tube during cutting of the first portion of the tube.

13. (Original) A method as set forth in claim 1 wherein said step of moving the first portion of the tube into the work station includes operating a feed assembly to move the tube along its longitudinal central axis.

14. (Previously Presented) A method as set forth in claim 13 wherein said step of moving the first portion of the tube into the work station includes rotating the tube about its longitudinal central axis under the influence of force transmitted from the feed assembly to the tube.

15. (Original) A method as set forth in claim 1 wherein said step of moving the first portion of the tube into the work station includes engaging the tube with a plurality of feed rollers and rotating the feed rollers to move the tube along a longitudinal central axis of the tube under the influence of force applied to the tube by the feed rollers.

16. (Original) A method as set forth in claim 15 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating at least one of the feed rollers about an axis which is skewed relative to the longitudinal central axis of the tube.

17. (Original) A method as set forth in claim 15 wherein said step rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating a first feed roller about a first axis which is skewed relative to the longitudinal central axis of the tube and rotating a second feed roller about a second axis which is skewed relative to the longitudinal central axis of the tube.

Claims 18 – 53 (Cancelled).

54. (Previously Presented) A method as defined in claim 1 wherein said moving, cutting and directing steps are repeated until said tube is spent.

55. (Previously Presented) A method as set forth in claim 1 wherein said step of moving a first portion of the tube into the work station includes moving a leading end of the tube into the work station at a first speed, reducing the speed at which the leading end of the tube moves into the work station to a second speed which is less than the first speed, and moving the leading end of the tube into engagement with a stop while the leading end of the tube is moving at the second speed.

Claim 56 (Cancelled).

57. (Previously Presented) A method as set forth in claim 1 wherein said step moving a first portion of the tube into the work station includes engaging the tube with a plurality of sets of rollers and rotating the rollers in each set of

rollers about axes which are skewed relative to each other and are skewed relative to a longitudinal central axis of the tube.

58. (Previously Presented) A method as set forth in claim 1 wherein said step of moving a first portion of the tube into the work station includes engaging the tube with a plurality of feed rollers and rotating the feed rollers to move the tube along a longitudinal central axis of the tube under the influence of force applied to the tube by the feed rollers.

59. (Previously Presented) A method as set forth in claim 58 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating at least one of the feed rollers about an axis which is skewed relative to the longitudinal central axis of the tube.

60. (Previously Presented) A method as set forth in claim 58 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating a first feed roller about a first axis which is skewed relative to the longitudinal central axis of the tube and rotating a second feed roller about a second axis which is skewed relative to the first axis.

61. (Previously Presented) A method as set forth in claim 1 wherein said step of moving a first portion of the tube into a work station includes moving the tube in a first direction along its longitudinal central axis to move the first portion of the tube and a mandrel into a telescopic relationship at the work station, and pressing an end of the first portion of the tube against a stop surface at the

work station, said method further includes the steps of moving the second portion of the tube along its longitudinal central axis in a direction opposite to the first direction to move the second portion of the tube away from the first portion of the tube after performing said step of cutting the first portion of the tube, withdrawing the mandrel from the plurality of sections formed by cutting the first portion of the tube, said step of moving the second portion of the tube into the work station includes moving the second portion of the tube along its longitudinal central axis to move the second portion of the tube and the mandrel into a telescopic relationship at the work station, and pressing the end of the second portion of the tube against the stop surface at the work station.

62. (Previously Presented) A method as set forth in claim 61 wherein said step of moving the first portion of the tube and the mandrel into a telescopic relationship includes simultaneously moving the tube in the first direction along its longitudinal central axis and moving the mandrel along the longitudinal central axis of the tube in the direction opposite to the first direction.

63. (Previously Presented) A method as set forth in claim 61 wherein said step of moving the first portion of the tube and the mandrel into a telescopic relationship is performed while rotating the tube and the mandrel at the same speed and in the same direction about a longitudinal central axis of the tube.

64. (Previously Presented) A method as set forth in claim 1 wherein said step of cutting the first portion of the tube into a first plurality of sections

includes pressing an end of the first portion of the tube against the stop surface while the stop surface is in a first position, said method further includes moving the stop surface to a second position, said step of cutting the second portion of the tube includes pressing an end of the second portion of the tube against the stop surface with the stop surface in the second position.

65. (New) A method of processing a tube, said method comprising the steps of:

rotating a mandrel disposed at a work station,

rotating the tube,

moving a first portion of the tube into the work station while rotating the tube and mandrel, said step of moving the first portion of the tube into the work station includes moving a leading end of the tube into the work station at a first speed while rotating the tube, reducing the speed at which the leading end of the tube moves into the work station to a second speed which is less than the first speed while rotating the tube, and moving the leading end of the tube into engagement with a stop while the leading end of the tube is moving at the second speed and while rotating the tube,

cutting the first portion of the tube into a first plurality of sections while rotating the tube and mandrel,

receiving a scrap section which is disposed on an end of the first portion of the tube at a scrap receiving location,

receiving sections of the first portion of the tube other than the scrap section at a second receiving location which is separate from the scrap receiving location,

moving a second portion of the tube into the work station while rotating the tube and mandrel,

cutting the second portion of the tube into a second plurality of sections,

directing the second plurality of sections to the second receiving location which is separate from the scrap receiving location.

66. (New) A method as set forth in claim 65 wherein said step of cutting the first portion of the tube into a first plurality of sections includes forming an end surface on the second portion of the tube, said step of moving the second portion of the tube into the work station is performed with the end surface on the second portion of the tube leading.

67. (New) A method as set forth in claim 65 further including the step of pressing an end of the first portion of the tube against the stop under the influence of force transmitted from the second portion of the tube to the first portion of the tube during cutting of the first portion of the tube, said step of pressing the first end portion of the tube against the stop being performed while rotating the tube relative to the stop.

68. (New) A method as set forth in claim 65 further including the steps of pressing the end of the first portion of the tube against the stop with the stop

surface in a first position during cutting of the first portion of the tube into a first plurality of sections, moving the stop surface to a position spaced from the first position, said step of cutting the second portion of the tube includes pressing an end of the second portion of the tube against the stop with the stop in a position spaced from the first position.

69. (New) A method as set forth in claim 65 further including the step of rotating the tube about a longitudinal central axis of the tube during performance of said steps of moving the first portion of the tube into the work station, cutting the first portion of the tube, moving the second portion of the tube into the work station, and cutting the second portion of the tube.

70. (New) A method as set forth in claim 65 wherein said step of moving the first portion of the tube into the work station includes moving the first portion of the tube along a longitudinal central axis of the tube, said step of moving a second portion of the tube into the work station includes moving the second portion of the tube along the longitudinal central axis of the tube.

71. (New) A method as set forth in claim 65 further including the step of moving the second portion of the tube in a direction away from the work station after performing said step of cutting the first portion of the tube and prior to performance of said step of moving the second portion of the tube into the work station.

72. (New) A method as set forth in claim 65 further including the step of moving the first end portion of the tube and a mandrel into a telescopic relationship in which the mandrel is disposed inside the first portion of the tube, rotating the mandrel while the tube and mandrel are in a telescopic relationship, and rotating the tube at the same speed as the mandrel while the tube and mandrel are in a telescopic relationship, said step of rotating the tube at the same speed as the mandrel includes rotating the tube under the influence of force applied to the tube at a location spaced from the mandrel.

73. (New) A method as set forth in claim 65 further including the step of pressing the leading end of the tube against the stop during cutting of the first portion of the tube into a first plurality of sections.

74. (New) A method as set forth in claim 65 wherein said step of moving the first portion of the tube into the work station includes engaging the tube with a plurality of feed rollers and rotating the feed rollers to move the tube along a longitudinal central axis of the tube and to rotate the tube about its longitudinal central axis under the influence of force applied to the tube by the feed rollers.

75. (New) A method as set forth in claim 74 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating at least one of the feed rollers about an axis which is skewed relative to the longitudinal central axis of the tube.

76. (New) A method as set forth in claim 74 wherein said step rotating the feed rollers to move the tube along the longitudinal central axis of the tube and to rotate the tube about its longitudinal central axis includes rotating a first feed roller about a first axis which is skewed relative to the longitudinal central axis of the tube and rotating a second feed roller about a second axis which is skewed relative to the longitudinal central axis of the tube.

77. (New) A method of processing a tube, said method comprising the steps of:

rotating a mandrel,

rotating the tube,

moving a first portion of the tube into a work station, said step of moving the first portion of the tube into the work station includes the steps of rotating the tube about its longitudinal central axis at the same speed as the mandrel while the tube is spaced apart from the mandrel and moving the mandrel and tube into a telescopic relationship while rotating the mandrel and tube at the same speed, reducing the speed at which a leading end of the tube moves into the work station from a first speed to a second speed which is less than the first speed while the mandrel and tube are in the telescopic relationship, and moving the leading end of the tube into engagement with a stop while the leading end of the tube is moving at the second speed and the mandrel and tube are in the telescopic relationship,

cutting the first portion of the tube into a first plurality of sections while rotating the tube and mandrel,

receiving a scrap section which is disposed on an end of the first portion of the tube at a scrap receiving location,

receiving sections of the first portion of the tube other than the scrap section at a second receiving location which is separate from the scrap receiving location,

moving a second portion of the tube into the work station while rotating the tube and mandrel,

cutting the second portion of the tube into a second plurality of sections, and

directing the second plurality of sections to the second receiving location which is separate from the scrap receiving location.

78. (New) A method as set forth in claim 77 wherein said step moving a first portion of the tube into the work station includes engaging the tube with a plurality of sets of rollers and rotating the rollers in each set of rollers about axes which are skewed relative to each other and are skewed relative to a longitudinal central axis of the tube.

79. (New) A method as set forth in claim 77 wherein said step of moving a first portion of the tube into the work station includes engaging the tube with a plurality of feed rollers and rotating the feed rollers to move the tube along a longitudinal central axis of the tube under the influence of force applied to the tube by the feed rollers.

80. (New) A method as set forth in claim 79 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating at least one of the feed rollers about an axis which is skewed relative to the longitudinal central axis of the tube.

81. (New) A method as set forth in claim 79 wherein said step of rotating the feed rollers to move the tube along the longitudinal central axis of the tube includes rotating a first feed roller about a first axis which is skewed relative to the longitudinal central axis of the tube and rotating a second feed roller about a second axis which is skewed relative to the first axis.

82. (New) A method as set forth in claim 77 wherein said step of moving a first portion of the tube into a work station includes moving the tube in a first direction along its longitudinal central axis to move the first portion of the tube and a mandrel into a telescopic relationship at the work station, said method further includes the steps of moving the second portion of the tube along its longitudinal central axis in a direction opposite to the first direction to move the second portion of the tube away from the first portion of the tube after performing said step of cutting the first portion of the tube, withdrawing the mandrel from the plurality of sections formed by cutting the first portion of the tube, said step of moving the second portion of the tube into the work station includes moving the second portion of the tube along its longitudinal central axis to move the second portion of the tube and the mandrel into a telescopic relationship at the work

station, and pressing the end of the second portion of the tube against the stop at the work station.

83. (New) A method as set forth in claim 82 wherein said step of moving the tube and the mandrel into a telescopic relationship includes simultaneously moving the tube in the first direction along its longitudinal central axis and moving the mandrel along the longitudinal central axis of the tube in the direction opposite to the first direction.

84. (New) A method as set forth in claim 77 wherein said step of cutting the first portion of the tube into a first plurality of sections includes pressing an end of the first portion of the tube against the stop while the stop is in a first position, said method further includes moving the stop to a second position, said step of cutting the second portion of the tube includes pressing an end of the second portion of the tube against the stop with the stop in the second position.